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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/630,121	08/01/2000	Hao A. Chen	3620-023-01	8367

7590

04/29/2003

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EXAMINER

WATKINS III, WILLIAM P

ART UNIT	PAPER NUMBER
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1772

DATE MAILED: 04/29/2003

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary**Application No.**

09/630,121

Applicant(s)

CHEN ET AL.

Examiner

William P. Watkins III

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-21,31-33 and 37-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-21,31-33 and 37-53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. The finality of the office action mailed 14 January 2003 is withdrawn in view of the new rejections presented below. The amendment filed 11 April 2003 has been entered.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 7-21, 31-33, 37-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nelson (U.S. 6,324,809 B1) in view of Nishibori (U.S. 5,869,138) further in view of Andres (U.S. 5,553,427).

Nelson teaches planks, which can be used to make up a floating floor: which can consist of a core layer, which may be PVC; and a decorative overlay, which may be a high pressure laminate (col. 2, line 50 through col. 3, line 45, col. 2, lines 1-5). The examiner notes that many options for the top and bottom layers of the core are taught, but that the core being

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exposed as the bottom surface, with a decorative laminate as the top surface, is a possible taught option (col. 2, lines 50-61).

Nishibori '138 teaches printing a wood grain pattern on a background colorant coating on a core with a clear protective top coat, the core is comprised of thermoplastic resin, which is used as a wood board substitute flooring (abstract, Figure 1).

Andres teaches the use of hollow cavities in a PVC floor plank as well as the use of feet to raise the plank off the floor (Figure 7). The instant invention claims the use of printing on the core of a PVC plank in a floating floor with the use of hollow cavities and feet on the planks. It would have been obvious to one of ordinary skill in the art to print directly on the plank of Nelson et al. instead of using a printed overlay in order to save the expense of construction of the overlay and provide a realistic wood grain pattern because of the teachings of Nishibori '138 to form a realistic wood grain pattern on a thermoplastic core by direct printing (abstract, Figure 1). It further would have been obvious to use cavities and feet in the planks of Nelson in view of Nishibori '138 in order to lower the weight and amount of material used in the core and to raise the planks off of the subfloor for the purposes of insulation because of the teachings of Andres. Nelson appears both explicitly and implicitly to teach rectangular planks with no

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type of cupping. The examiner therefore takes the planks of Nelson as modified above to be equivalent to the heat-treated planks of the instant claims. The examiner takes the background colorant layer of Nishibori '138 as being part of the final printed pattern since it forms a visible part of the pattern. In the alternate it would have been obvious to delete the colored layer and just print a wood grain pattern if a less realistic appearance is acceptable as a trade off to produce a lower cost final product due to the deletion of a process step.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 31, 47, 51 and 53 are rejected under 35 U.S.C. 102(a and e) as being anticipated by Nishibori (U.S. 5,869,138).

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The reference teaches a plank made of a thermoplastic resin with a printed pattern on the core and a top coat on the printed pattern (abstract, Figure 6). The examiner takes the colorant coating as being part of the printed pattern design since the color forms a visible part of the wood grain pattern and therefore the printed pattern design is taken as being on the top surface of the core. Nishibori '138 appears both explicitly and implicitly to teach boards with no type of cupping. The examiner therefore takes the boards of Nishibori '138 to be equivalent to the heat treated planks of the instant claims. No backing layer is taught on the bottom of the core of Nishibori '138.

6. Claim 53 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nishibori (U.S. 5,869,138) in view of Nishibori (U.S. 4,610,900).

Nishibori '138 teaches a printed pattern on a thermoplastic core as noted above. Nishibori '900 teaches thermal treatment of a thermoplastic core after molding in order to resist deformation of the core over time (abstract). The instant invention claims heat-treating of a thermoplastic core with a printed pattern. It would have been obvious to one of ordinary skill in the art to heat treat the board of Nishibori '138 in

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order to reduce deformation over time because of the motivation of the teachings of Nishibori '900 to heat treat thermoplastic boards to reduce deformation.

7. Applicant's arguments with respect to claims 7-21, 31-33, 37-53 have been considered but are moot in view of the new ground(s) of rejection.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Wang teaches transfer printing directly on a soft thermoplastic core.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William P. Watkins III whose telephone number is 703-308-2420. The examiner works an increased flex time schedule, but can normally be reached Monday through Friday, 11:30 A.M. through 8:00 P.M. Eastern Time. The examiner returns all calls within one business day unless an extended absence is noted on his voice mail greeting.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 703-308-4251. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.

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WW/ww

April 25, 2003

A handwritten signature in cursive script, reading "William P. Watkins III".

**WILLIAM P. WATKINS III
PRIMARY EXAMINER**